

**PRODUCT PERFORMANCE / EFFICACY REVIEW**

Mark Suarez, Entomologist - IB

*Mark S.*  
*18 August 2009*

**DATE:** 18 August 2009

**EPA REG. NUMBER:** 279PA1  
**PRODUCT NAME:** SGT Bifenthrin/Zeta-Cypermethrin  
**APPLICANT:** FMC Corp.

**PM:** Richard Gebken, PM13  
**REVIEWER:** Linda DeLuise

**DECISION #:** 412738  
**DP BARCODE:** 365756  
**ACTION:** R272

**ACTIVE INGREDIENT(S):** 128825, Bifenthrin.....8.00%  
129064, Zeta-Cypermethrin.....0.75%  
**TYPE:** Liquid Concentrate

**OPPTS GUIDELINE(S):** 810.1000  
810.3000  
810.3500

**MRID:** 47755501  
47755502  
47755503  
47755504

**GLP ?:** No.

**SITES:** Indoor/Outdoor  
**PESTS:** General Household Pests, Bed bugs,  
Termites, Mosquitoes, Spiders, Ticks,  
Scorpions, Gnats, Cockroaches, Fleas, Ants,  
Centipedes, Stinging Hymenoptera,  
Chiggers

**STUDY APPLICATION RATE:** Variable  
**LABEL APPLICATION RATE:** N/A

**SUMMARY:**

The registrant originally came in for a pre-registration meeting to discuss a new bifenthrin/zeta-cypermethrin registration. They intended to encapsulate the bifenthrin for the purpose of enhancing the performance of the product. The registrant wishes to rely upon the existing product performance data on file for bifenthrin in support of claims for the encapsulated bifenthrin formulation.

The encapsulation of the primary residual active ingredient raised concerns about the ability of the product to provide the desired level of efficacy. In response, the registrant provided product performance data for German cockroaches, harvester ants, and Argentine ants. The data provided did not adhere to a single protocol, but generally tested the encapsulated bifenthrin + zeta-cypermethrin product against bifenthrin alone.

**ENTOMOLOGIST'S COMMENTS AND RECOMMENDATIONS:**

The data provided are not adequate to support the bridging argument proposed. The data failed to indicate that the product will provide comparable efficacy due to high variability, substandard mortality, and a general lack of data to support bridging for the wide range of pests and uses listed on the product label.

The registrant is encouraged to test the residual efficacy of encapsulated bifenthrin + zeta-cypermethrin formulation, unencapsulated bifenthrin alone, zeta-cypermethrin alone, and a negative control applied to ceramic tile and unpainted/unsealed wood against (i.e., water) bed bugs, carpenter ants, centipedes, American and German cockroaches, scorpions, ticks, and yellow jackets to support bridging to all pests listed. (The exposure duration in forced contact trials is not to exceed 5 minutes.)

Enclosure  
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